

CLAIMS

What is claimed is:

- 1 1. An integrated circuit (IC) package comprising:
2 a first power plane; and
3 a power bar including a first conducting panel electrically connected to the first
4 power plane along a first adjacent edge.
- 1 2. The IC package of claim 1 wherein the IC package further includes
2 a second power plane electrically isolated from the first power plane; and
3 a second conducting panel electrically connected to the second power plane of the
4 IC package along a second adjacent edge.
- 1 3. The IC package of Claim 2, wherein the power bar further includes a non-
2 conducting insulation panel separating the first conducting panel from the second
3 conducting panel.
- 1 4. The IC package of Claim 1, wherein the power bar further includes one or more
2 conducting bumps electrically connected to the first conducting panel.
- 1 5. The IC package of Claim 3, wherein the power bar further includes one or more
2 conducting bumps electrically connected to one or more of the first conducting
3 panel and the second conducting panel.
- 1 6. An Integrated Circuit (IC) socket comprising:

- 2 a power bar carrier, wherein the power bar carrier includes a first conducting
3 panel electrically coupled to a first plurality of conducting pads.
- 1 7. The IC socket of claim 6, wherein the first conducting panel further includes one
2 or more conducting contacts extending beyond the periphery of the conducting
3 panel and coupled to the first conducting panel.
- 1 8. The socket of Claim 7 wherein the first conducting panel and the one or more
2 conducting contacts are stamped from a single conducting foil.
- 1 9. The IC socket of claim 7, wherein the one or more conducting contacts are
2 compressibly and electrically engageable.
- 1 10. The IC socket of claim 7, wherein the one or more conducting contacts are
2 comprised of a bent conducting material.
- 1 11. The IC socket of claim 7, wherein the one or more conducting contacts further
2 comprise a spring constant.
- 1 12. The IC socket of claim 6 wherein the power bar carrier further includes a second
2 conducting panel electrically coupled to a second plurality of conducting pads.
- 1 13. The IC socket of claim 12 wherein the second conducting panel is insulated from
2 the first conducting panel.
- 1 14. The IC socket of claim 6 further comprising an activation mechanism that causes
2 the power bar carrier to engage a power bar of a corresponding IC package.
- 1 15. The IC socket of Claim 6 further comprising one or more pin receptacles.

- 1 16. The IC socket of Claim 15 further comprising a first activation mechanism that
2 causes the power bar carrier to engage a power bar of a corresponding IC package
3 with a first force and a second activation mechanism that causes the one or more
4 pin receptacles to engage one or more pins with a second force.
- 1 17. The IC socket of Claim 16 wherein the first force and the second force are
2 substantially equivalent.
- 1 18. The IC socket of Claim 15 further comprising an activation mechanism that
2 simultaneously causes the power bar carrier to engage a power bar with a first
3 force and causes the one or more pin receptacles to engage one or more pins with
4 a second force.
- 1 19. The IC socket of Claim 18 wherein the first force and the second force are
2 substantially equivalent.
- 1 20. An integrated circuit (IC) power delivery system comprising:
2 an IC socket including a power bar carrier comprising a first conducting panel
3 electrically coupled to a first plurality of conducting pads; and
4 an IC package including a first power plane and a power bar comprising a first
5 conducting panel electrically connected to the first power plane along a
6 first adjacent edge.
- 1 21. The IC power delivery system of claim 20 wherein the IC package further
2 includes:
3 a second power plane electrically isolated from the first power plane; and
4 a second conducting panel electrically connected to the second power plane of the
5 IC package along a second adjacent edge.

- 1 22. The IC power delivery system of Claim 21, wherein the power bar further
2 includes a non-conducting insulation panel separating the first conducting panel
3 from the second conducting panel.
- 1 23. The IC power delivery system of Claim 20, wherein the power bar further
2 includes one or more conducting bumps electrically connected to the first
3 conducting panel.
- 1 24. The IC power delivery system of Claim 22, wherein the power bar further
2 includes one or more conducting bumps electrically connected to one or more of
3 the first conducting panel and the second conducting panel.
- 1 25. The IC power delivery system of claim 20, wherein the first conducting panel
2 further includes one or more conducting contacts extending beyond the periphery
3 of the conducting panel and coupled to the first conducting panel.
- 1 26. The IC power delivery system of Claim 25 wherein the first conducting panel and
2 the one or more conducting contacts are stamped from a single conducting foil.
- 1 27. The IC power delivery system of claim 25, wherein the one or more conducting
2 contacts are compressibly and electrically engageable.
- 1 28. The IC power delivery system of claim 25, wherein the one or more conducting
2 contacts are comprised of a bent conducting material.
- 1 29. The IC power delivery system of claim 25, wherein the one or more conducting
2 contacts further comprise a spring constant.

1 30. The IC power delivery system of claim 20 wherein the power bar carrier further
2 includes a second conducting panel electrically coupled to a second plurality of
3 conducting pads.

1 31. The IC power delivery system of claim 30 wherein the second conducting panel is
2 insulated from the first conducting panel.

1 32. The IC power delivery system of claim 20 further comprising an activation
2 mechanism that causes the power bar carrier to engage a power bar of a
3 corresponding IC package.

1 33. The IC power delivery system of Claim 20 further comprising one or more pin
2 receptacles.

1 34. The IC power delivery system of Claim 33 further comprising a first activation
2 mechanism that causes the power bar carrier to engage a power bar of a
3 corresponding IC package with a first force and a second activation mechanism
4 that causes the one or more pin receptacles to engage one or more pins with a
5 second force.

1 35. The IC power delivery system of Claim 34 wherein the first force and the second
2 force are substantially equivalent.

1 36. The IC power delivery system of Claim 33 further comprising an activation
2 mechanism that simultaneously causes the power bar carrier to engage a power
3 bar with a first force and causes the one or more pin receptacles to engage one or
4 more pins with a second force.

1 37. The IC power delivery system of Claim 36 wherein the first force and the second
2 force are substantially equivalent.